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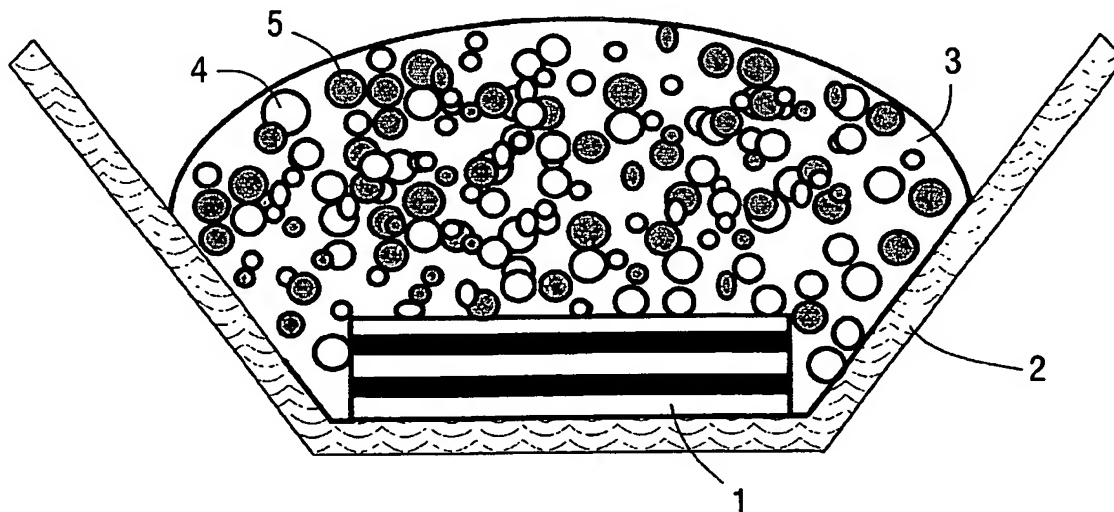
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[Continued on next page]

(54) Title: LIGHT-EMITTING DEVICE COMPRISING AN EU(II)-ACTIVATED PHOSPHOR



(57) Abstract: The invention concerns a light emitting device comprising a light emitting structure capable of emitting primary light of a wavelength less than 480 nm and a luminescent screen comprising a phosphor of general formula  $(\text{Sr}_{1-a-b}\text{Ca}_b\text{Ba}_c\text{Mg}_d\text{Zn}_e)\text{Si}_x\text{N}_y\text{O}_z:\text{Eu}_a$ , wherein  $0.002 \leq a \leq 0.2$ ,  $0.0 \leq b \leq 0.25$ ,  $0.0 \leq c \leq 0.25$ ,  $0.0 \leq d \leq 0.25$ ,  $0.0 \leq e \leq 0.25$ ,  $1.5 \leq x \leq 2.5$ ,  $1.5 \leq y \leq 2.5$  and  $1.5 < z < 2.5$ . The invention also concerns a luminescent screen comprising a phosphor of general formula  $(\text{Sr}_{1-a-b}\text{Ca}_b\text{Ba}_c\text{Mg}_d\text{Zn}_e)\text{Si}_x\text{N}_y\text{O}_z:\text{Eu}_a$ , wherein  $0.002 \leq a \leq 0.2$ ,  $0.0 \leq b \leq 0.25$ ,  $0.0 \leq c \leq 0.25$ ,  $0.0 \leq d \leq 0.25$ ,  $0.0 \leq e \leq 0.25$ ,  $1.5 \leq x \leq 2.5$ ,  $1.5 \leq y \leq 2.5$  and  $1.5 < z < 2.5$ . The invention also concerns a phosphor of general formula  $(\text{Sr}_{1-a-b}\text{Ca}_b\text{Ba}_c\text{Mg}_d\text{Zn}_e)\text{Si}_x\text{N}_y\text{O}_z:\text{Eu}_a$ , wherein  $0.002 \leq a \leq 0.2$ ,  $0.0 \leq b \leq 0.25$ ,  $0.0 \leq c \leq 0.25$ ,  $0.0 \leq d \leq 0.25$ ,  $0.0 \leq e \leq 0.25$ ,  $1.5 \leq x \leq 2.5$ ,  $1.5 \leq y \leq 2.5$  and  $1.5 < z < 2.5$ .

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A. CLASSIFICATION OF SUBJECT MATTER  
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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	VAN KREVEL J W H ET AL: "Long wavelength Ceemission in Y-Si-O-N materials" JOURNAL OF ALLOYS AND COMPOUNDS, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. 268, no. 1-2, 27 March 1998 (1998-03-27), pages 272-277, XP004130688 ISSN: 0925-8388 the whole document	1-11
A	EP 0 155 047 A (PHILIPS NV) 18 September 1985 (1985-09-18) the whole document	1-11
P,A	US 2003/094893 A1 (FIEDLER TIM ET AL) 22 May 2003 (2003-05-22) the whole document	1-11
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

International

Location No

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